

# Creativity and Bipolarity

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## A Correlation Between Bipolarity and Creativity: Discovering a Possible Phenomenon

Since at least as early as Plato, creativity has been linked with madness (Rothenberg & Hausman, 1976). William James noted the phenomenon in his writings as early as the beginning of the twentieth century as did Kraepelin, and Juda began conducting studies in the 1920's (Jamison, 1993). Since the 1970's there have been numerous studies exploring the possible connection between creativity and bipolarity. With her book *Touched With Fire* and other articles, Jamison reintroduced the phenomenon to popular culture, and perhaps, brought us back to revering the artist as a mad creator as was done in ancient Greece.

Looking at biographical information, Ludwig (1992) compared eminent individuals across professions to test the hypothesis that mental disturbances have higher prevalence rates in more creative professions and that there is in fact a relationship between creative achievement and mental illness. Ludwig discovered that individuals in fields considered creative had higher levels of psychopathology. He also found that prevalence of mental disorder was positively related to creative achievement regardless of profession, but this relationship was, according to him, not meaningful. Ludwig concluded that the important focus of future research should be which types of mental disorder can be associated with which professions.

Andreasen conducted research which concentrated on mental disorder among members of one creative profession (Jamison, 1993). During her study of writers participating in the Iowa Writers' Workshop, Andreasen found an incidence rate for major mood disorder of 80 percent among the creative writers compared to 30 percent for the control group. What's more, the rate of bipolar disorder among the group of writers was 43 percent.

Jamison (1993) examined the lives of major British and Irish poets born between 1705 and 1805. She found a "strikingly high rate of mood disorders, suicide, and institutionalization" among the subjects and their families (p. 62). Basing her research on biographical and autobiographical information, Jamison concluded that the poets she examined were thirty times more likely to be afflicted with bipolar disorder I and almost twenty times more likely to suffer from major depressive disorder.

## DSM-IV Diagnoses that Relate to Bipolarity

(adapted from *Fortune City*, no date)

Bipolar Disorder I – one or more manic or mixed episodes, possibly one or more major depressive episodes

Bipolar Disorder II – one or more major depressive episodes in conjunction with at least one hypomanic episode

Mood Disorder-Cyclothymia – Periods of hypomania with periods of depression for at least two years. Depressive states do not include symptoms of major depressive disorder.

Major Depressive Episode Criteria (lasting over at least a two week period)

Three to four of the following symptoms that impair functioning

- Depressed mood on most days
- Decreased pleasure or interest in activities
- Significant weight loss or weight gain (without trying)
- Insomnia or somnolence almost every day
- Erratic or slowed muscle movements
- Fatigue or loss of energy
- Inability to concentrate or make decisions
- Feeling worthless
- Thoughts of death, suicidal ideation, suicide attempts

Manic Episode Criteria

A period of elevated, expansive, or irritable mood, lasting at least 1 week (or requiring hospitalization)

Three to four of the following symptoms persist and impair functioning

- Inflated self-esteem, grandiose feelings
- Diminished desire for sleep
- Need to talk more
- Racing thoughts
- More goal directed
- Easily distracted, agitated (physically and mentally)
- Engaging in pleasurable activities that have negative outcomes

Hypomanic Episode Criteria

Same as Manic Episode criteria but do not impair functioning (but are observable by others)

Mixed State

When symptoms of both major depressive and hypomanic episodes coincide for at least one week.

## Treating Bipolar Disorder

### Forms of Treatment

- Pharmacotherapy (Medication)
- Electroconvulsive Therapy (ECT)
- Psychotherapy

### The Effects of Medication on Creativity

Lithium has long been, and continues to be, the primary medication used to treat Bipolar Disorder I (Dunner, 2005). As a result of mood disorder patients' anecdotal reports to psychiatrists and a high treatment resistance rate, professionals in the health field began to study the cognitive side effects of lithium.

- Schou (1979) - Case studies of 24 creative, bipolar individuals showed mixed effects of lithium on artistic productivity.
  - Several participants in study noted increased productivity
    - Increase attributed to better functioning not creativity itself, but the artists remained creative while using it
    - Quality of work remained high
  - Some artists had same productivity
    - Reported higher quality of work
    - Reported transformations in their style
  - A small number had a decrease in artistic productivity
    - Some stopped lithium treatment due to its effects on their creativity
    - May have been temporary
- Shaw, Mann, Stokes, Manevitz (1986) - Experimental study looking at the effects of lithium on fluency and idiosyncrasy of word associations
  - Discontinuation of lithium resulted in increased production and idiosyncrasy of word associations
  - Resumption of lithium reversed these effects
  - Felt the results indicated the possibility that lithium affects the "underlying neuropsychological functions" related to creative productivity (p. 1166)
- Kocsis, Shaw, Stokes, Wilner, Elliott, Sikes, Myers, Manevitz, Parides (1993) - Experimental study investigating the effects of lithium on cognition and creativity.
  - Overall cognitive and creative performance improved significantly after lithium discontinuation, although the magnitude of effect was not great

- Interestingly, the one measure that did not change as a result of lithium discontinuation was idiosyncrasy of word associations
- Results of this study may relate to other assertions presented in this project regarding the relationship between productivity and quality.
- Stoll, Locke, Vuckovic, and Mayer (1996) – Experimental qualitative study comparing the effects of lithium and divalproex sodium on creativity
  - Found that switching from lithium to divalproex sodium was beneficial to reducing the negative side effects related to cognition, motivation, and creativity.

### Final Analysis on Medication

Many researchers and practitioners call for careful evaluation when medicating creative individuals with bipolar disorder (Rothenberg, 2001; Kinney, 1992). Overwhelmingly, they agree that, overall, people with bipolar disorder are better off with treatment than without and that effects on creativity can be minimized and sometimes even enhanced. Armed with adequate information and a clear understanding of their patients' creative nature, Rothenberg believes, practitioners can help patients who resist treatment based on the idea that it will have a negative impact.

See medication side effects chart in second attachment.

## Which came first, the Creativity or the Bipolarity? Causal Research

Jamison (1993) focused on the role of mood in the creative process during her study of British authors and artists. A large proportion of participants in the study reported changes in mood, cognition, and behavior that preceded or coincided with creative and productive periods. The most commonly reported of changes that occurred during the creative periods were "increases in enthusiasm, energy, self-confidence, speed of mental association, fluency of thoughts and elevated mood, and a strong sense of well-being (pp. 77-78). Jamison points out that these changes overlap with criteria used to identify hypomania. Participants reported alterations in sleep patterns and energy level as well as feelings of anticipation, psychological discomfort, and euphoria just prior to creatively productive periods.

Ramey and Weisberg (2004) correlated the productivity and quality of Emily Dickinson's poetry with different mood periods in her life to test their hypothesis that her bipolarity had a positive effect on her creativity. They interpreted the correlation of her mood and the quality and productivity of her work to be a result of a complex dynamic in which her hypomania was a negative mediating factor on the

positive effects her negative mood had on the quality of her poetry. One possibility the authors inferred from the relationship between these factors is that mood and creativity were causal in both directions. Production of quality creative work led to the manic periods which then led to periods of greater productivity but work with lower quality. However, the authors also concede that the result of creative success may be positive affect which shares similar features with psychopathology.

In attempting to tackle the same issue, Fodor and Laird (2004) posed a directional hypothesis that elevated mood in subjects with bipolar inclination would lead to greater creativity. In a matched pairs design, the researchers randomly treated forty-four control subjects and forty four subjects with bipolar inclination to either a treatment designed to elevate mood or a treatment designed to have no effect on mood. The results of their study were somewhat different from those of Ramey and Weisberg. In their study, participants with higher Surgency (mood) scale scores produced work that was deemed more creative, so they found support for the idea that positive mood leads to increased creativity. And subjects with bipolar inclination and high Surgency scores did indeed have products considered to be the most highly creative. Interestingly, there was also a significant difference between creativity of subjects of bipolar inclination and control subjects who did not have high Surgency scale scores.

## Creativity, Bipolarity and Temperament

Researchers are beginning to suspect that there may be temperament traits that lead to both creativity and bipolar disorder. Nowakowska, Strong, Santosa, Wang, and Ketter (2005) conducted a study investigating the temperamental commonalities and differences of bipolar disorder, unipolar mood disorder (major depressive), creative (none with history of mood disorder), and healthy subjects. Nowakowska et al. found substantial overlap of temperamental characteristics between mood disorder and creative subjects. Bipolar and creative subjects were the closest pair with regard to temperament, sharing such qualities as cyclothymia, irritability, dysthymia, and neuroticism. Especially prominent in the overlap between the creative and bipolar subjects was the trait of openness from which the researchers concluded that this shared trait, closely tied to creativity, could be a factor in increased creativity among individuals with bipolar disorder. According to the authors, their findings are consistent with the idea of a neurobiological, temperamental, factor which may lead to heightened creativity among people with bipolar disorder.

## Genetics, Creativity and Bipolar Disorder

Professionals in the fields of psychology and medicine have examined creativity patterns in families afflicted with bipolarity. In 1971, McNeill compared the rates of psychopathology in high, above average, and low creative adoptees and their adoptive and biological parents (Jamison, 1993). McNeill concluded there was a

significant and positive relationship between mental illness and creativity. More importantly, he found that mental illness rates of the biological parents were positively and significantly related to the creative abilities of the adoptees, thereby suggesting a genetic link between creativity and mental disorders. The fact that the rates of psychopathology remained constant among the adoptive parents added to McNeill's argument. Andreasen examined the incidence of mood disorder among writers and their relatives and found that bipolarity was common in the writers' families (Piiro, 2004). During her study, Andreasen also discovered that a large portion of the writers came from creative families, suggesting a genetic link between creativity and bipolarity.

Richards, Kinney, Lunde, and Merzel (1988) investigated the possibility that bipolarity in families results in an advantage toward creativity. They hypothesized that creativity may be a positive genetic byproduct of affective disorder, but that the benefits would manifest themselves in family members less affected by the disease. They did find that first degree normal relatives of individuals with some form of bipolar disorder were suggestively more creative than their family members with bipolarity. Also, the overall level of creativity among individuals with bipolar disorder and their relatives was higher than that of individuals in the control group. They were surprised, though, that cyclothymes did not have higher levels of creativity than their more acutely affected relatives with manic-depressive disorder leading them to question their hypothesis about the relationship between degree of bipolarity and level of creativity.

Simeonova, Chang, Strong, and Ketter (2004) compared the creativity of parents with bipolar disorder and their offspring affected with bipolar disorder or attention-deficit/hyperactivity disorder (ADHD) to the creativity of healthy parents and their healthy offspring. Simeonova et al. proposed that the offspring of bipolar disorder parents would have higher levels of creativity than offspring of the control parents and that the offspring of bipolar parents who were bipolar themselves would have the highest level of creativity. Overall, the offspring of bipolar parents had markedly higher creativity than the control offspring, findings consistent with the notion that creativity may be genetically tied to bipolarity. Interestingly, the authors found little difference between the creativity scores between the bipolar offspring and the offspring with ADHD. This suggested to the authors that creativity and bipolarity may be linked genetically through transferred temperamental traits, that ADHD and creativity may also be linked, and/or that the characteristics of ADHD in the children in the study were actually prodromal symptoms of bipolar disorder.

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